



Stichorkis - Synonymy, taxonomic notes

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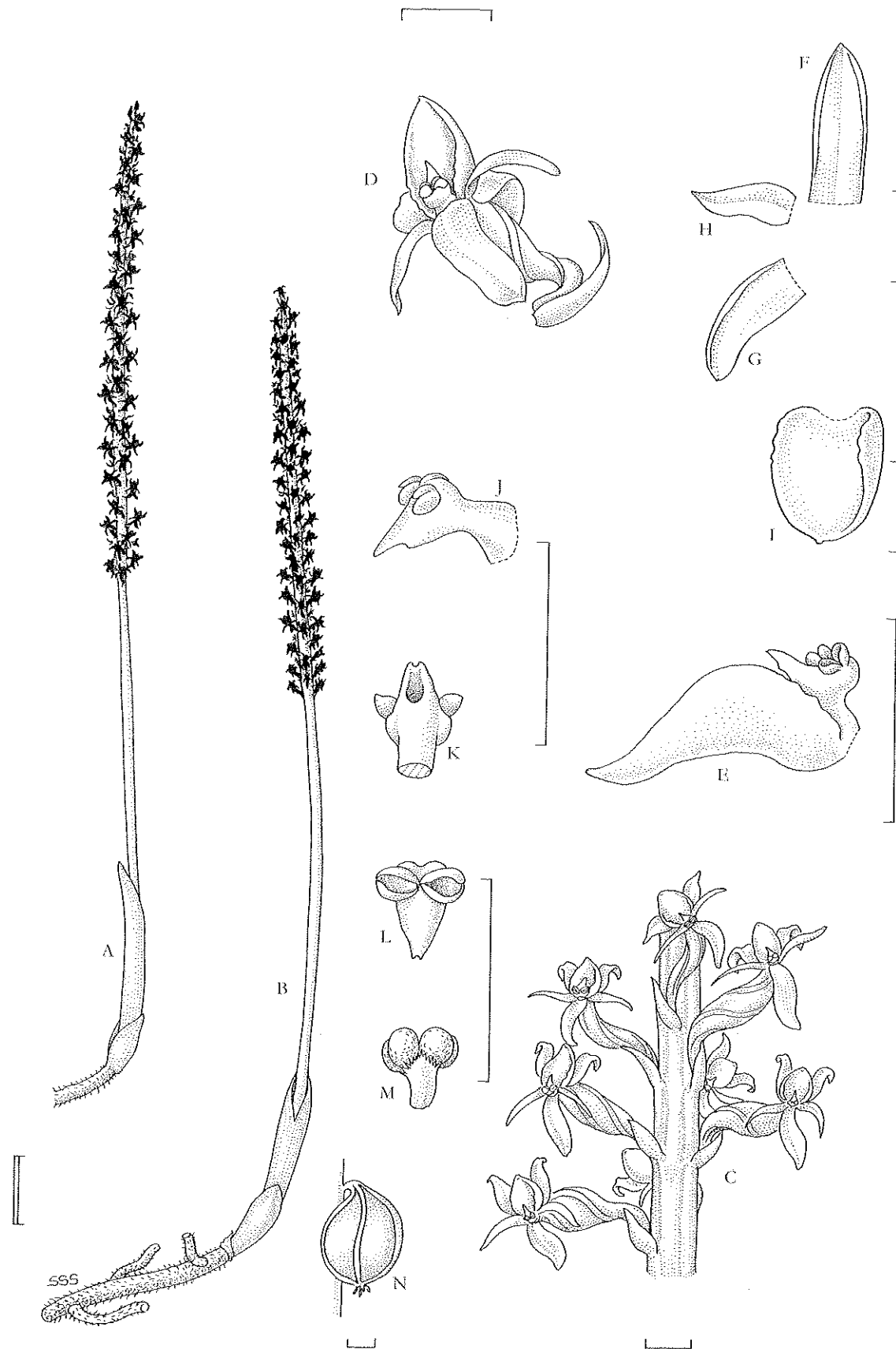


Fig. 383.1. *Risleya atropurpurea* King & Pantl. A, B. Habit; C. Inflorescence; D. Flower; E. Labellum and column; F. Dorsal sepal; G. Lateral sepal; H. Petal; I. Labellum; J. Column, side view; K. Column, dorsal view; L. Anther cap; M. Pollinarium; N. Capsule. Single bar = 1 mm, double bar = 1 cm. Drawn by Susanna Stuart-Smith, A–L, N from *Pantling 451* (K), M from *Wilson 4575* (K). Reproduced with permission from N. R. Pearce and P. J. Cribb (2002), *The Orchids of Bhutan*. The Royal Botanic Garden Edinburgh and Royal Government of Bhutan.

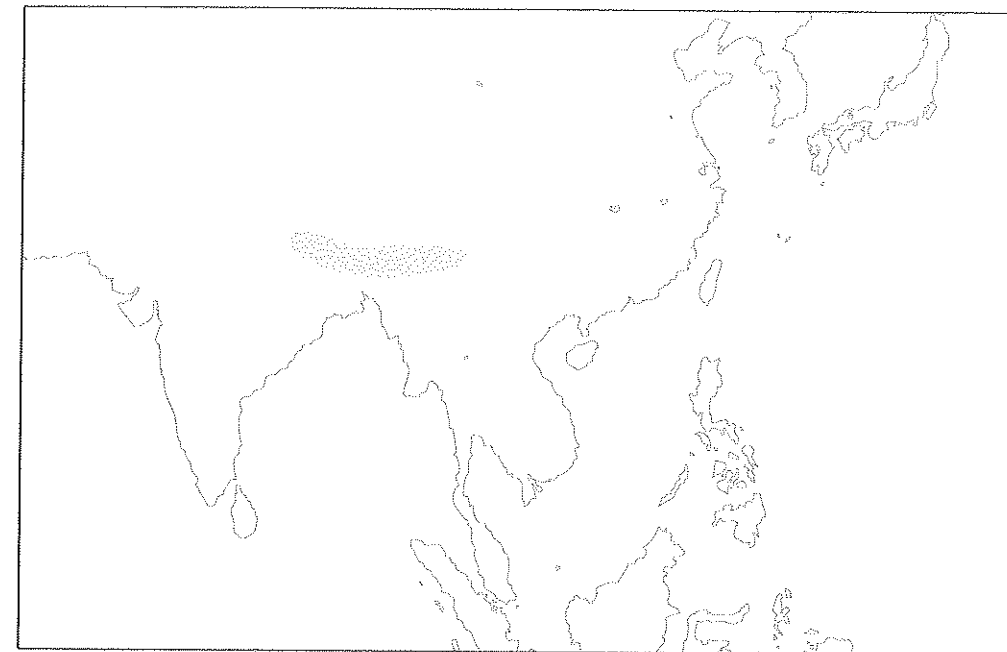


Fig. 383.2. Distribution map of *Risleya*.

fleshy, drying black. *Dorsal sepal* erect, free. *Lateral sepals* similar but oblique. *Petals* free, smaller than sepals, oblique. *Labellum* erect, entire, cucullate. *Column* clavate; anther dorsal on column apex, two-chambered, pollinia waxy, four in two unequal pairs, attached to a large viscidium; rostellum elongate, ovate, shallowly emarginate at apex. *Ovary* cylindrical. (PC)

Distribution (Fig. 383.2)

A monospecific genus confined to Sikkim and Bhutan in the eastern Himalayas and western China. (PC)

Cytogenetics

No chromosome counts for *Risleya* have been recorded. (AP)

Ecology

Risleya atropurpurea grows in *Sphagnum* bogs and patches at 3500–4400 m. (PC)

Pollination

Nothing is known about pollination in *Risleya*. (AP)

Uses

There are no known uses for *Risleya*, and it is not commonly in cultivation. (AP)

Taxonomic notes

Risleya is closely related to *Malaxis*, especially the temperate *M. monophylla*. Two species of *Malaxis* are holomycotrophic, and their relationship to *Risleya* warrants further investigation. (PC)

384. STICHORKIS

Stichorkis Thouars, *Nouv. Bull. Soc. Philom.*, n. 19 (1809) 318.

Lectotype: *Stichorkis disticha* (Lam.) Pfitz., designated by Rasmussen, *Bot. Not.*, **132**, 385–91 (1979).

Stichorkis Thouars, *Orch. Hes. Austr. Afr.*, Prem. Tabl. Esp., Tabl. des Genres and t. 90 (1822), orth. var. of *Stichorkis*.

Distichis Lindl., *Veg. Kingdom*, 181 (1847), *nom. nud.*

Cestichis Lindl. ex Pfitz., *Entom. Anordn. Orch.*, 56 (1887).

Liparis Rich. sect. *Distichae* Ridl., *J. Linn. Soc., Bot.*, **22**, 244–97 (1886). Type species: *Liparis disticha* (Thouars) Lindl.

Disticholiparis Marg. & Szlach., *Orchidee (Hamburg)*, **55**, 175 (2004), *nom. illeg.* Type species: *Disticholiparis disticha* (Thouars) Marg. & Szlach. (basonym: *Malaxis disticha* Thouars).

Derivation of name

From the Greek *stichos*, row or rank, and *orchis*, orchid, in reference to the two distichous rows of bracts that characterize this genus. (PC)

Description (Fig. 384.1)

Epiphytic or rarely terrestrial *herbs*. Rhizome creeping, covered by tubular scales. *Stem* pseudobulbous, erect, one-noded, clustered or not, covered when young by 2–5 sterile sheaths, one-leaved at apex. *Leaf* erect, linear or oblanceolate, conduplicate. *Inflorescence* erect, racemose, rachis laterally flattened, shorter than peduncle; floral bracts distichous, imbricate. *Flowers* non-resupinate, opening in succession, usually yellow, green, or orange, often translucent. *Sepals* recurved, dorsal sepal free, lateral sepals sometimes fused for part or all of length. *Petals* free, often linear and unlike sepals, erect. *Labellum* often reflexed, entire or lobed, usually with a pad-like callus, concave at the base, lacking a spur. *Column*



Fig. 384.1. *Stichorkis anopheles* (J.J. Wood) J.J. Wood. A. Habit; B. Flower, side view; C. Dorsal sepal; D. Lateral sepal; E. Petal; F. Labellum; G. Pedicel with ovary and column. H. Anther cap; I. Pollinia; J. Capsule. Single bar = 1 mm, double bar = 1 cm. Drawn by Eleanor Catherine from *Surat in Wood 871* (holotype, K).



Fig. 384.2. Distribution map of *Stichorkis*.

incurved-arcuate, laterally winged near apex; anther attached by a slender filament, biloculate, pollinia waxy, ovoid, bilaterally flattened, four in two pairs, each with a small viscidium; stigma concave; rostellum thin-textured, blunt. (PC)

Distribution (Fig. 384.2)

A genus of some 38 species, well represented in Madagascar, the Mascarenes, the Malay Archipelago, the Philippines, New Guinea, Australia, and the southwest Pacific islands. (PC)

Cytogenetics

No chromosome counts for *Stichorkis* have been recorded. (AP)

Ecology

Species are epiphytes or less commonly lithophytes or terrestrials in lowland, hill, lower, and upper montane forests, usually in light to deep shade, from sea level to 2500 m. (PC)

Pollination

Nothing is known about pollination in *Stichorkis*. (AP)

Uses

No uses have been reported for *Stichorkis*, and it is not commonly cultivated. (AP)

Taxonomic notes

Du-Petit Thouars described *Stichorkis* and *Leptorkis* as segregates of *Malaxis* Sw. in Thouars (1809). *Stichorkis* has most often been included in *Liparis* Rich. (conserved over *Leptorkis* Thouars), but it is here recognized as distinct. *Stichorkis* was stated to comprise two species, one of which was already described by Lamarck as *Angraecum cespitosum* (actually 'Angrec en gazon' = *Epidendrum cespitosum* Lam.). In Thouars (1822), the other species was described as *Stichorkis distichis* Thouars, with *Malaxis disticha* as alternative, and depicted together with *Stichorkis cestichis* Thouars (alternatively *Malaxis cespitosa* (Lam.) Thouars).

The Thouarsian new-style epithets '*distichis*' and '*cestichis*' which appear as single capitalized words at the lower left corner of the illustrations of Thouars (1822) were mistaken for generic names by Lindley. Pfitzer (1888) accepted *Stichorkis* as a distinct genus but used Lindley's erroneous name '*Cestichis*'. Pfitzer (1897) corrected this mistake and made four combinations with *Stichorchis* [sic]. Ames (1905, 1908), apparently unaware of Pfitzer's correction, used *Cestichis* Lindl. ex Pfitz. for some Asiatic species. Schlechter (1911) used '*Cestichis*' as a name for a subgenus.

Rasmussen (1979) reviewed some of the nomenclatural problems caused by the confusion over the two sets of names used by Thouars and suggested a conservation of *Liparis* against *Stichorkis*, but he recognized that this concept represents a well-defined group of species and lectotyped *Stichorkis* with *Malaxis disticha* Thouars. Based on the same species, Ridley

(1886) recognized *Liparis* section *Distichae* with an epiphytic habit, one-leaved pseudobulbs, a linear to oblanceolate leaf, a flattened rachis with distichous, imbricate bracts, and flowers opening in succession.

Based upon the morphological characters listed above, the genus *Disticholiparis* was recently established by Margonska and Szlachetko (2004) for this group of distinctive species. Unfortunately, they were unaware of Rasmussen's lectotypification of *Stichorkis*.

The DNA analyses of Salazar (unpublished) and Cameron (2005) indicate that *Liparis* is polyphyletic, the species of *L.* sect. *Distichae* forming a clade sister to both *Oberonia* and another group of epiphytic *Liparis* with linear leaves. On the basis of their results, *Stichorkis* is accepted here. (PC, FR)

Taxonomic literature

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